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**Laitinen**(10) **Pub. No.: US 2016/0373877 A1**(43) **Pub. Date: Dec. 22, 2016**(54) **BINAURAL AUDIO REPRODUCTION**(52) **U.S. Cl.**(71) Applicant: **Nokia Technologies Oy**, Espoo (FI)CPC ..... **H04S 7/304** (2013.01); **H04S 2420/01**  
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(57)

**ABSTRACT**(73) Assignee: **Nokia Technologies Oy**

A method including providing an input audio signal in a first path and applying an interpolated head-related transfer function (HRTF) pair based upon a direction to generate direction dependent first left and right signals in the first path; providing the input audio signal in a second path, where the second path includes a plurality of filters and a respective amplifier for each filter, where the amplifiers are configured to be adjusted based upon the direction, and applying to an output from each of the filters a respective head-related transfer function (HRTF) pair to generate direction dependent second left and right signals for each filter in the second path; and combining the generated left signals to form a left output signal for a sound reproduction, and combining the generated right signals to form a right output signal for the sound reproduction.

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